# BOLLEIN Vol. 40 - No. 35 September 5, 1986 BROOKHAVEN NATIONAL LABORATORY



Members of the Energy Research Advisory Board (ERAB) were joined by William Martin, Deputy Secretary of Energy, DOE; Nicholas Samios, BNL Director; and Martin Blume, BNL Deputy Director, for this photo taken outside Berkner Hall last week: (front row, from left) Joel Snow, ERAB's Acting Executive Director; Arthur Hansen; Janice Phillips; William Martin; Martin Blume; Nicholas Samios; Mildred Dresselhaus; Hirsh Cohen; (back row, from left) Robert Pry; Roger Noll; Francis Stehli; Joseph Gavin; Ruth Patrick; Floyd Culler; Lawrence Papay; Robert Weimer; Frank Baranowski; John Huizenga; John Schoettler, ERAB Chairman; John Landis; and Norman Ramsey. See story page 2.

# M. Stanley Livingston, BNL Pioneer, Dies

M. Stanley Livingston, who led the new Brookhaven National Laboratory's first accelerator project and who later helped conceive and develop the alternating-gradient principle at BNL, died on August 26, in Santa Fe, New Mexico. He was 81 years old.

Laboratory Director Nicholas Samios said, "We are very saddened to learn of the passing of Dr. Livingston. In particular, we wish to note his major contribution to the discovery of the strong focusing principle. This idea has revolutionized the field of accelerator physics, and almost every major circular machine since then has been built on this principle."

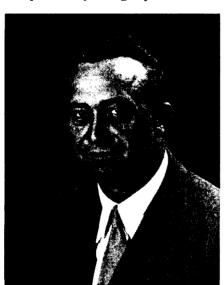
Livingston joined the Laboratory in 1946, as the leader of the Accelerator Project. He was uniquely qualified for this challenge. In 1931 at Berkeley, working with the late Ernest Lawrence, he had helped build the first cyclotron, which launched an explosive growth of accelerators throughout the world that continues to this day.

One of those was BNL's first proton synchrotron, for which Livingston was in charge of design and construction. Called the Cosmotron and completed in 1952, it ultimately reached 3 billion electron volts (GeV), more than 1,000 times the energy of the first cyclotron.

In 1948, with Cosmotron construction well under way, Livingston returned to the professorship he had held at the Massachusetts Institute of Technology (MIT) since 1938. But he remained a consultant to the Laboratory until 1958 and returned for several summers as a visiting senior physicist. One such year was 1952, when he spent the summer looking for ways in which a new accelerator might be made better than the Cosmotron.

BNL Senior Physicist Ernest Courant recalled that this effort led to the invention of "strong focusing" or "alternating-gradient focusing." "Livingston suggested what first seemed to be a straightforward and minor improvement in the magnet configuration," said Courant, "and, as theorists, Hartland Snyder and I

noted that this modification would change the orbit stability. All three of us suddenly saw that, in this way, one could overcome limitations on the strength of the focusing, or stability, properties of the accelerator, making the focusing very much stronger than was previously thought possible."



M. Stanley Livingston

BNL's 33 GeV Alternating Gradient Synchrotron was among the first major applications of this new idea, which, as it happened, had been proposed earlier, by Nicholas Christofolis in Greece, though the results had not been published.

In 1962, Livingston and Physicist John Blewett, who retired from BNL in 1978, collaborated on the book, *Particle Accelerators*, which is still considered a definitive work. Blewett remembered his co-author "with admiration and affection."

Livingston received his Ph.D. in physics from the University of California, in 1931. He maintained a professorship at MIT from 1938 to 1970. He was director of the Cambridge Electron Accelerator (CEA) at Harvard, from 1956 to 1967, when he became associate director of the new National Accelerator Laboratory (Fermilab). When he retired to Santa Fe with his wife Lois, in 1970, Livingston was named MIT professor emeritus

## **Rohrer Joins Directorate**

E. Parke Rohrer returned to the Laboratory on September 1, as Associate Director for Management and Physical Plant.

In this capacity, Rohrer is responsible for three divisions: Central Shops, Contracts and Procurement, and Plant Engingeering. He will also oversee the Quality Assurance Group, as well as a group devoted to project management.

Rohrer first came to Brookhaven in the mid-1970's, as a special consultant for the conventional facilities for the colliding beam accelerator (CBA) project known then as ISABELLE. In 1982, he was named Deputy Project Head.

After the CBA project was cancelled in 1983, Rohrer left BNL, and his career took a new direction. As a volunteer, he supervised the building of a complex in North Carolina for Jungle Aviation and Radio Services, the support arm for Wycliffe Bible Translators, whose primary purpose is to translate the Bible into languages that were previously unwritten. About 400 volunteers from all walks of life helped construct the complex, which will be part of a training center for pilots, radio operators and others involved in the organization's efforts in South America and other areas.

"These last two years," he said, "will probably turn out to be the most interesting work I've ever done. But I have been very fortunate to have had an extremely interesting and diversified career."

Rohrer's career actually began in mechanical engineering. From 1952 to 1961, he worked in such areas as manufacturing, heat transfer and production, first at the Armstrong Cork Company in Pennsylvania, then at the Rohr Corporation in California.

In 1961, Rohrer started with Daniel, Mann, Johnson & Mendenhall (DMJM), a California-based international consulting engineering firm. "That's when I got into the architecture, engineering and construction area," he explained.

Rohrer's assignments with DMJM took him many different places. In 1962, for example, he became vice



E. Parke Rohrer

president and manager of DMJM's Far East Asia Operations Office in Tokyo, Japan, which built facilities for the U.S. government in Korea, Okinawa and Japan.

Following his five years in Japan, Rohrer went to Illinois for DMJM. From 1968 to 1974, he was general manager of the joint venture of architects and engineers that built Fermilab at Batavia, Illinois.

Rohrer left DMJM in 1975 and became an independent management consultant in the energy field. "Because of my experience at Fermilab," he said, "I was invited to be a consultant at BNL." Now back at the Lab on a full-time basis, Rohrer said, "I am looking forward to working with a lot of people that I have worked with before." Rohrer is literally at the Lab full-time for now, as he and his wife Jan have taken up temporary residence in the Brookhaven House.

Rohrer holds a B.S. in mechanical engineering from New York University. He is a member of the American Society of Mechanical Engineers and the National Society of Professional Engineers. He is also licensed as a professional engineer in California and Pennsylvania.

## Photons for the Factory, Part II

In the international race to manufacture high-density supercomputer chips using x-ray lithography, the U.S. is regaining ground.

At the second U.S. Workshop on Compact Synchrotron Radiation Sources, held at BNL last week, preliminary designs for two compact storage rings dedicated to producing photons for x-ray lithography were approved by the 52 representatives of the U.S. semiconductor industry and the national laboratories in attendance. Additionally, a more detailed timetable was established to meet the 1991 deadline for the production of the first U.S. superconducting compact light source for industrial use.

X-ray lithography is a high-resolution experimental technique used for transferring circuit patterns onto silicon wafers. Because microchip circuitry is becoming smaller, present-day optical production techniques for making integrated circuits are reaching the limits of resolution and must soon be replaced by x-ray lithography. To mass-produce integrated circuits with components smaller than 0.5 microns ( $\mu$ m), the semiconductor industry needs synchrotrons to produce

soft x-rays for lithography. And they want their industrial synchrotrons to be compact, having a mean radius of only a few meters, so they can fit several in each factory.

In 1980, the first experiments using synchrotron light to make integrated circuits were begun at the National Synchrotron Light Source (NSLS) vacuum ultraviolet (VUV) ring by IBM. Despite this international lead, the U.S. fell behind in the race because it relied solely on private sector R&D while the governments of Japan and West Germany have been cooperating with their semiconductor industries in x-ray lithography R&D and compact storage ring building programs.

While the West Germans say they will have the first affordable compact synchrotron on the market by 1988, a U.S. compact synchrotron based on NSLS designs approved at this meeting would be several times brighter than the West German machine. As well, the NSLS-designed compact synchrotron meets industrial specifications, which were established at the first workshop, held at BNL in March.

Using these specifications, the NSLS (Continued on page 2)



Organizers and presenters at the Workshop on Compact Synchrotron Radiation Sources: (from left) Richard Heese, NSLS; Mark Barton, NSLS; Frank Salzano, Office of Research & Technology Applications (ORTA); Bill Marcuse, ORTA; Norman Kreisman, DOE; NSLS Chairman Michael Knotek; Ben Craft, NSLS; Dorry Tooker, ORTA; Tom Dickinson, NSLS; and Gwyn Williams, NSLS. The Workshop was sponsored by the NSLS and ORTA.

### **Photons**

(Cont'd)

staff has worked for the past five months on designs for both a conventional magnet and a superconducting magnet compact synchrotron. The integrated circuit industry's parameters for the optimal compact synchrotrons are a critical wavelength of ten angstroms, power of 2.5 watts per milliradian (mrad), and a one millimeter electron beam having an angular divergence of one mrad in both planes.

To continue the design effort, however, additional funding must be sought immediately. A third meeting will be held at the Lab in early fall to propose a budget and project the scientific personnel needed.

In addition to design work for the optimal compact synchrotron proceeding as scheduled, the chip manufacturers at the workshop called for construction within the next two years of a non-compact, conventional storage ring for industrial research and development work. Based on currently available plans, the ring would use conventional magnets, have an energy of about one hillion electron volts, be about 30 meters in circumference (which is smaller than the 51-meter in circumference VUV ring but still not considered compact enough) and have exclusive beam lines to accommodate proprietary work.

Ideally, a yet-to-be-established U.S. industrial consortium would construct and use this ring, which would be built in conjunction with an integrated circuit production center. Conserva-

tively designed, the ring would be built with the assistance of experts at the NSLS and other national labs, possibly at one of these facilities. The synchrotron would be used for further research in x-ray lithography and the production of 0.25  $\mu m$  integrated circuits, including the development of the ancillary equipment needed to transfer circuit patterns onto silicon wafers.

During the workshop, NSLS machine designers and industrial representatives discussed one of the key issues in the development of compact synchrotrons: the energy at which the electrons should be injected into the machines. A conservative compact synchrotron design would include a high-energy injector, at least for a prototype. Such an injector would assure the ring's rapid commissioning and its performance according to design. However, a high-energy injector is more expensive than a smaller one of lower energy. Therefore, any compact synchrotron that is to be commercially affordable must have a low-energy injector that balances cost and performance.

Ideally, the semiconductor industry, with assistance from the machine designers and builders at the national labs, will develop the compact synchrotron radiation sources they need to remain competitive in the international integrated circuit market. This development plan would ensure that compact rings can be commercially available by the 1991 deadline.

— Marsha Belford

## **ERAB Meeting Held at BNL**

Energy research and development (R&D) in the United States was the subject under discussion in Berkner Hall, August 26-28, as BNL hosted the 1986 Summer Study of the Department of Energy's (DOE) Energy Research Advisory Board (ERAB).

ERAB reports to Secretary of Energy John Herrington, and its aim is to advise him about directions for the department's energy R&D and basic science programs. The Board's Acting Executive Director is Joel Snow, of DOE's Office of Energy Research, which provides the staff support for the Board. While at BNL for the meeting. Snow explained, "ERAB was put in place in 1978 and has continued through each of the Secretaries of Energy since. The issues considered by ERAB since its inception have had impact on DOE's R&D priorities and on relations with laboratories and universities.'

Most of the business at last week's meeting involved grappling with various energy research issues. Over its last six years of operation, ERAB has formed panels to consider energy topics ranging from advanced isotope separation to solar energy, from the multiprogram laboratories to international R&D collaboration. One focus of this meeting was to evaluate these panels and the impact of their reports. Towards that end, a special report had been prepared for discussion at this meeting, entitled "Case Studies of DOE Response to ERAB Recommendations: A Retrospective Analy-

Reports were also heard from four panels at various stages in their investigations. Snow described these four studies as a strategic plan for civilian nuclear power, a review of DOE's role in funding physics research, and reviews of the department's programs in solid earth sciences and in magnetic fusion. Other discussions centered on potential topics for future panels.

In December 1985, ERAB provided

Secretary Herrington with a sixvolume report called "Guidelines for Long-Range Civilian R&D." On the second day of this meeting, William Martin, Deputy Secretary of Energy, met with ERAB to review these guidelines and state DOE's responses to them. "It's terribly important that you have done a long-term strategy report," he told the Board. "It's certainly something that we can use. We need to have science counsel at high levels. . . . Most people don't understand DOE's important role in science. Clearly, DOE has enormous responsibility across the board in science and. even though our name doesn't include science, we are a big player.'

The science counsel comes from 25 members, who are appointed to ERAB from the private sector, to broadly represent DOE's civilian R&D endeavors in energy and science. Members are appointed on a year-to-year basis, and terms are limited to four consecutive years.

Three of ERAB's four yearly meetings, which are all open to the public, are held in Washington, D.C., but the summer meeting is always held at a different DOE facility. This way, explained Snow, "The Board gets to learn more about the nuts and bolts of how the department operates."

Since this meeting was held at Brookhaven, the "nuts and bolts" were presented at the outset by people associated with the Lab. First, Robert Hughes, President of Associated Universites Inc. (AUI), spoke about AUI's role in managing BNL for the DOE and about the role of the national laboratories. Next, BNL Director Nicholas Samios gave an overview of the Laboratory's users, major facilities and educational activities. Then the group was addressed by Hilary Rauch, Manager of the Chicago Operations Office, which includes among its operations BNL, Argonne and Fermi National Laboratories and the Princeton Plasma Physics Laboratory. ERAB members also spent one morning touring BNL.

### **Speaking Out:** About Weight Watchers

Over a ton was lost, and all 260 BNL employees enrolled in the on-site Weight Watchers (WW) program are winners. Since February, when the first two weightwatching groups were organized on site as a Health Promotion activity of the Occupational Medical Clinic, 2,285.5 pounds have been shed by followers of the Weight Watcher's Quick Start Diet. Sixteen stuck to the diet long enough to reach their goal weight, undertake a life-long maintenance diet and become lifetime members of Weight Watchers. To encourage other employees to sign up for the new classes starting this month, eight discuss their dieting strategies,

George Bozoki
(DNE) — I had gained
weight over the years
— not by eating too
much, but by exercising too little! I joined
WW because my wife
wanted me to and be-



cause I want to prevent any overweight-related disease. Since the classes were on site, it was convenient for me to go and an opportunity I wouldn't have missed. I believe if you decide to lose weight, you can do it by yourself, but the group approach made it much easier psychologically. I generally stuck to the diet, but I worked out my individual preferences. I lost 40 pounds, and I have accepted the WW tenets for life.

Tage Carlsson (PE)

— I had given up smoking and had put on 15-20 pounds, so I decided I had to do something about it or else I'd go back to smoking. I tried to lose



as much as I could quickly, so I lost 45 pounds total in 16 weeks, which was about three pounds a week. I was hungry on the diet, but not excessively. I never broke my diet — I wanted to put all those years of eating and weighing too much behind me. I feel better now — I am able to work around the house and the yard without having to sit down to catch my breath.

Ben Belligan (PE) — My weight and blood pressure were getting up there. By sticking to the WW diet, more or less, I lost 27 pounds — I again weigh what I did when I started



working at the Lab 24 years ago. And at my last Lab physical, my blood pressure was down to normal. In the beginning of the diet, I got hungry once in a while, so I ate a lot of carrots, celery and Alba malts. Five weeks into the diet, I went to California on vacation and gained four pounds. I figured I had blown it, but I got back on the week-four diet and lost eight pounds that week.

Dorry Tooker (DO)

—I had gained weight
by eating big meat
and potatoes meals
with my husband. So
I went to lose an extra
10-12 pounds, was
shocked when I was



told I had 20 to lose and ended up losing 26. This was the healthiest diet I have ever been on — I ate more than I ever ate and never had hunger pains. I'm a structured person, so I followed the diet — I planned my menus, and counted, weighed and measured everything. Each week, new foods and additional calories were added to the diet, and I would get so excited about being able to eat something like a baked potato with yogurt.

struggles and successes.

A free, open meeting explaining the on-site WW program will be held on Tuesday, September 9, from noon to 1 p.m., in Berkner Hall. New and continuing members may sign up for classes on Tuesdays, Wednesdays and Thursdays, beginning September 16, 17 and 18, respectively. All classes will meet from 5:15 to 6:15 p.m. in the Medical Conference Room, Bldg. 490. As the Lab is sharing the cost with new members, they will only pay \$29 for the eight-week sessions; continuing members will pay the full cost of \$58.

Reporter: Marsha Belford

**Photographer: Peter Horton** 

Eva Bozoki (NSLS) — I was snacking when I wasn't hungry, eating things too rich in calories and not cutting back after overeating — so I had gained weight, slowly



but surely. I became desperate because no diet I had tried on my own had worked. I have no idea why I succeeded on WW, but I did it — I lost 26 pounds. It was a reasonable plan, but sometimes I cheated — everybody does. But I learned not to panic and not to feel so guilty that I would cheat again. I just continued dieting where I left off.

Bill Fritz (AGS) — I was feeling totally out of shape — I couldn't keep up with my daughter on the bicycle. Before WW, I had been up and down the scale many times on many



different diets. This diet put me in tune with my hunger — and food tastes better when you eat no more than you need. For me, there was no such thing as one piece of chocolate cake — it is a food I have a compulsion to eat and can't stop eating. So I learned to keep my addiction under control — I can have one slice, but not the whole cake. I lost 48 pounds altogether, and I'm proud to be a card-carrying Weight

Lois Marascia (DNE)
- I didn't have a lot to
lose — 16½ pounds,
but I had never been
able to lose it all before. Because I don't
have much willpower,
the step-by-step regi-



mentation and the weekly weigh-ins were why WW worked for me. Since the diet has lots of leeway, I almost never broke it. If I had a little of something good, I'd give up something else in exchange.

Anna Kuczynski (Fiscal) — I was feeling uncomfortable — heavier than I wanted to be. I had gone on different diets by myself — I would lose a pound and gain two.



WW offered the right combination for me: It was on site, right after work; the lecturer made dieting interesting; the group related well to one another at the meetings and at work; and I really wanted to lose the weight. I now look better and feel better about myself — I feel more alive and able to do things I always wanted to do, things I had put off like losing weight. By losing 22 pounds, I went down two whole dress sizes —I've been married 44 years, and my wedding gown is now too big. I even was in a fashion show at the South Shore Mall.

### BERA News-

### Golf

The penultimate tournament of the 1986 BGA season will be held Monday, September 15, at the Timber Point Course, Great River. The tournament will be the Third Annual Two-Person Scramble conducted in flights. To arrange tee-off times (11 a.m. to 1 p.m.), contact John Usher, Ext. 2096, Bldg. 130, but please make an effort to secure a partner and a second team with which to play before contacting him. Entries close Thursday, September 11, at noon. Greens fees are \$8 for Suffolk County residents, \$14 for nonresidents. Electric carts are \$16. Entry fees are \$1 for BGA members, \$2 for others. In the event of questionable weather, information as to the tournament's status will be available from the course pro shop, 581-2401. Report to Usher at the first tee at least twenty minutes before your scheduled tee-off

The fifth tournament of the 1986 BGA season was held August 12 at the Pine Hills Country Club. John Usher won the low gross competition in the A flight with a smooth 77; Dick Hildenbrand won low net with a 69. John Dioguardo sandbagged his way to an 83 (net 61) in B flight; Joe Bauernfeind shot a net 63. Jim Desmond shot 97 to win C flight; Ralph (Crusher) Brown shot net 69. The D-flight low gross was shared by tour rookie Nam Cho and veteran Ron Weider with 102 each; Alice Desmond had a net 68. Kevin Yachnik was closest to the flagstick on number 3; Eldon Schmidt was closest on number 17. Tom Dilgen hit the longest drive on number 9; Doug Sweely almost got all of one on number 18. Tournament director was Joe Carbonaro, who claimed responsibility for the good weather.

#### **Touch Football**

The BNL Touch Football season will begin on September 22 and extend to the end of October. Games will be played at the BERA Recreation Park on Monday and Thursday evenings at 5:20 p.m.

All teams interested may pick up entry blanks at the BERA Film Service Office between 9 a.m. and 2 p.m. A players' pool will accommodate those who would like to play but are not included on an organized team roster. Since no blocking and limited body contact are game rules, players of all ages can take part with little fear of being injured.

Call Ed Taylor, Ext. 7589, for more

#### information.

### **Hospitality News**

The next Hospitality Committee get-together will be Tuesday, September 9, from 9:30 to 11:30 a.m., at the Brookhaven Center. Silvana Matone, co-chairperson of the Committee, will be the guest speaker. Italy will be the topic of her discussion and slide presentation.

Please come to enjoy the morning with us. Spouses of Laboratory employees and guests are welcome. Coffee, tea and danish will be served. Bring the children; babysitting will be provided free of charge.

### BROOKHANEN BULLETIN

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### **Aerobic Dance**

Autumn is a time of changing leaves and changing temperatures. Maybe it's also time for a change of routine, by signing up for some of the exercise classes being offered this fall by the Aerobic Dance Club (ADC).

Instructor Pat Campbell will lead the two kinds of classes that are on the ADC's fall schedule:

- Stretch classes involve a choreographed program of exercises that concentrate on stretching and strengthening various muscle groups.
- Aerobic dance classes emphasize cardiovascular improvement through vigorous, choreographed exercise.

In a change from previous sessions, stretch classes will be held on Mondays, beginning September 8. Aerobic dance classes will continue to be held on Tuesdays and Thursdays, beginning September 9 and 11. Participants may take any or all of these classes. Those signing up for aerobic dance are encouraged to take it both afternoons, or one class of aerobics and one of stretch.

The fee for each ten-week session (M, T or Th) is \$30, payable at registration, which will precede the first classes. Classes are scheduled for the North Room of the Brookhaven Center, from 5:15 to 6:15 p.m.

For more information, call ADC President Paula Bennett, Ext. 3293, or Vice President Bill Leonhardt, Ext. 2378.

### **Volleyball**

There will be a captains' meeting and elections for volleyball officers on Wednesday, September 17, at noon, in the Snyder Seminar Room, first floor, Bldg. 911, AGS Department. Please bring your completed rosters.

### **Cooking Exchange**

The 1986-87 season of the BNL International Cooking Exchange will begin with a demonstration and sampling of Italian cooking on Wednesday, September 10, at 12:30 p.m., in the Recreation Building.

Meetings are open to employees working on site and their immediate family members. There is a charge of \$1.25 per person for each meeting, and babysitting is provided at 50 cents for each child.

Call Tina Grill-Sferlazzo, 286-9420, for further information.

### **Note to Diners**

The Cafeteria will be closed on Saturday, September 6. On that day, snack bar service will be available from 9 a.m. to 2 p.m. at the Brookhaven Center.

### **Arrivals & Departures**

Arrivale

F. Avraham Dilmanian	
Joseph M. Geller	. Accel.
Jennifer Grodberg	emistry
I-Hsiu Lee	. NSLS
Janko Milutinovic Paolo Nason	
David N. Pasquin Pla E. Parke Rohrer Directo	
Felice P. Villani Pla	nt Eng.

#### Donartures

Departures
This list includes all employees who have terminated from the Laboratory, including retirees:
Cheryl L. Baum DAS  Joseph L. Henriques Chemistry Livingstone R. Major Sfgrds. & Sec. William H. Marlow DAS  Khandker Muttalib Physics Bernice Petersen Director's Ofc.
Stanley Sajnacki Reactor Carol A. Sokolow P&GA John E. Verschure Plant Eng.
Kapo Yuen Applied Math

# 1986-87 BERA Concert Series Features Beethoven String Quartets

For the first time, the complete set of Beethoven string quartets will be played at Berkner Hall. The internationally famed Concord String Quartet will begin the cycle of 16 quartets during the upcoming 1986-87 Concert Series and complete the cycle in the 1987-88 set of concerts.

So concert-goers can mark their calendars in advance, here is a complete listing of this season's concerts. Concord String Quartet, playing all-Beethoven concerts

Tuesday, October 28, 1986 Friday, February 13, 1987 Wednesday, April 22, 1987 **Dorian Wind Quintet** 

Tuesday, September 30, 1986. Minoru Nojima, pianist

Monday, March 16, 1987 All performances begin at 8:30 p.m., and refreshments are served after the

Block tickets, good at any concert, can be purchased the night of the first concert. They are priced at \$6 each, for a minimum purchase of five tickets. If you want to buy tickets for individual concerts, then you may purchase them at the door the night of any performance. Those prices are \$9 for general admission, \$6 for students and those over age 65, and \$5 for those under 18.

All tickets may be purchased in advance from the following:



Ludwig van Beethoven

Arnold Aronson	475B	2606
Clemens Auerbach	197D	2914
Howard Gordon	510A	3740
Geoffrey Hind	463	3400
Richard Holroyd	555A	4329
Blanche Laskee	185	2873
Donald Lazarus	911B	4643
Myron Ledbetter	463	3418
Benjamin Magurno	197D	5207
Edwin Popenoe	490	3622
Stephen Schwartz	426	3100
T. Laurence Trueman	510A	3767

### **WIS Meeting**

At a lunch meeting of Brookhaven Women in Science on Thursday, September 11, Clinical Psychologist Jannifer Hill, head of the Employee Assistance Program, will speak about "Women with Converging Perspectives: Generational Differences in Career & Family Options." The meeting will be held at noon in Room A, Berkner Hall, and is open to the Lab community.

Before coming to BNL in March, Hill was a senior psychologist at the Harlem Hospital Center, where she acted as a clinician and co-director of an adult in-patient unit. She has treated children at the Brooklyn Center for Psychotherapy and had a private practice in Brooklyn. She received her Ph.D. in clinical psychology from the City University of New York.

Before Hill speaks, a short business session will be held to elect WIS officers for the next fiscal year. The nominees are: Louise Hanson and Angela Boccio for group coordinators, Mary Ann Castrogivanni for secretary, Susan Eng for treasurer, Prantica Som for program coordinator, Eva Emmerich for publicity coordinator and Joyce Tichler for seminar-lecture coordinator.

### Cafeteria Menu

(cup) .65

### Week of September 8

Monday, September 8

Chicken noodle soup

	(bowl) .85
Sautéed beef tips over noodles	2.45
Egg salad & cottage cheese	
(lite weight)	2.25
Beef & broccoli stir-fry w/1 veg.	2.45
Hot Deli: Sloppy Joe	2.35
Tuesday, September 9	
Southern beef vegetable soup	(cup) .65
	(bowl) .85
BBQ brisket w/1 veg.	2.45
Quiche Lorraine w/1 veg. (lite we	ight) 2.45
Hot Deli: Turkey melt	2.45
Wednesday, September 10	
Minestrone soup	(cup) .65
	(bowl) .85
Spaghetti and meat sauce	, ,
w/French bread	2.95
All you can eat special	
(no take-outs)	
Braised liver & onions w/1 veg.	
(lite weight)	2.45
Hot Deli: Baked ham	(bread) 2.35
	(roll) 2.50
Thursday, September 11	
Beef barley soup	(cup) .65
	(bowl) .85
Chicken breast teriyaki w/1 veg.	2.55
Baked fish w/1 veg. (lite weight)	2.65
Hot Deli: Roast beef	(bread) 2.35
	(roll) 2.50
Friday, September 12	
Boston clam chowder	(cup) .65
	(bowl) .85
Seafood platter w/1 veg.	2.65
Turkey à la king w/biscuits	2.45
Hot vegetable plate (lite weight)	2.25
Hot Deli: Pastrami	(bread) 2.35
	(roll) 2.50

All film badges will be changed tomorrow. Please place your badge in its assigned rack space before leaving work today.

### **PSI News**

The Upton Chapter of Professional Secretaries International has for sale a limited supply of 1987 planning pocket calendars with Statue of Liberty covers. The cost is \$1 each. This ways & means project will benefit the PSI Scholarship Fund. To purchase a calendar, call Mary Cooper, Ext. 4105.

### **Reports Available**

The following reports are now available to the Laboratory staff and to affiliates of the DOE, AUI and NRC. Others may purchase the reports from the National Technical Information Service, U.S. Dept. of Commerce, 5285 Port Royal Rd., Springfield, VA 22161. Staff members should call the designated contact at the extension listed.

BNL-51960

Contact: A. Waltz, Ext. 2537 Characteristics of High Temperature Cementitious Lost-Circulation Control Materials for Geothermal Wells. T. Sugama, et al.

NUREG/CR-4549 BNL-NUREG-51967

Contact: L. Hanlon, Ext. 7517
Determination of Appendix K Conservatisms for Large Break LOCA in a Westinghouse PWR Using TRAC-PD2/MOD1 Code. U.S. Rohatgi, et al.

BNL-51945

Contact: A. Vanslyke, Ext. 2387 Nitrogen Oxides: Health and Environmental Effects Document III. K.M. Novak, et al.

BNL-51950

Contact: M. Heimerle, Ext. 4776 High Energy Physics in the United States. M. Month.

#### Classified **Advertisements**

#### **Placement Notices**

The Laboratory's placement policy is to select the best-qualified candidate for an available position, with consideration given to candidates in the following order of priority: (1) present employees within the department and/or appropriate bargainwithin the department and/or appropriate bargaining unit, with preference to those within the immediate work group; (2) present employees within
the Laboratory as a whole; and (3) outside applicants. In keeping with the Affirmative Action plan,
selection decisions are made without regard to age, race, color, religion, national origin, sex, handicap or veteran status.

Each week, the Personnel Office lists new per-

Each week, the Personnel Office lists new personnel placement requisitions. The purpose of these listings is, first, to provide open placement information on all non-scientific staff positions; second, to give employees an opportunity to request consideration for themselves through Personnel; and, finally, for general recruiting purposes. Because of the priority preference policy stated above, each listing does not necessarily represent an opportunity for all candidates. As a guide to readers, the listings are grouped according to the anticipated area of recruitment.

Except when operational needs require otherwise, positions will remain open for one week fol-

wise, positions will remain open for one week fol-

lowing publication date.

For further information regarding a placement listing, contact the Employment Manager, Ext.

THE VACANCIES LISTED BELOW HAVE BEEN EXEMPTED BY THE DIRECTOR'S OFFICE FROM THE CURRENT FREEZE ON OPEN REQUISI-TIONS.

SCIENTIFIC POSITIONS OPEN: The following staff positions are open. Candidates may apply directly to the department representative named or through the Office of Scientific Personnel, Ext. 3338.

POSTDOCTORAL RESEARCH ASSOCIATE: To study the role and location of histone H1/H5 in chromatin higher order structure. Contact: Dr. V. Ramakrishnan, Biology Department.

#### **Autos & Auto Supplies**

84 COUGAR - V6, p/s, p/b, a/c,, am/fm cass, booster, must sell, \$8,000 neg. 737-6697.

72 CHEVY MONTE CARLO - V8, auto, good cond., \$500. Frank, Ext. 2022, or 399-4480.

69 MUSTANG - good running cond. 878-6074.

72 MERCEDES - model 250, 4 dr., good cond., runs well, needs work, body good, asking \$1,900. John, Ext. 3292 or 286-1348.

79 MONZA WAGON - 44k mi., excel. cond., 6 cyl. new tires, brakes, muffler, good mileage, \$1,700. 289-0034

80 CITATION - V6, hi-miles, \$800; 52 Dodge Coronet, garaged, needs restoration, \$1,800; 82 Olds Custom Cruiser, station wagon, loaded, \$3,700. Call Joe, Ext. 4028.

79 CHEVY MALIBU STATION WAGON - p/s, p/b, a/c, auto, roof rack, powder blue, \$1,800. 821-1215 after 6 p.m.

73 CHEVY CHEVELLE - new 350, 4 bbl, alternator, front-end alignment, tires, shocks, \$1,500. 325-8648, eves after 6 p.m.

77 HONDA - hatch, 4-spd., new trans., clutch, brakes, battery, \$450. John, Ext. 3164.

80 CHAMP - excel. cond., high mileage, \$1,200.

75 BMW R-90 - 900cc motorcycle, very good cond., \$2,900. Roger, Ext. 4677 or 878-8847. MOTORCYCLE FAIRING - black, halogen head-

light, built in marker lights, excel. cond., \$150. Mark, Ext. 4028 or 734-7561.

82 HONDA CIVIC - 4 dr., one owner, like new cond., new tires, exhaust, stereo. Ext. 2384 or 878-

75 TOYOTA CELICA - 5 spd., am/fm cass., runs well, new electrical system, \$500. Terry, Ext. 2840. 77 PINTO WAGON - auto, V6, p/s, a/c, 36k mi., new tires, orig. owner, \$1,500. Ext. 3509 or 299-9533

81 CHAMP - very good cond., hatchback, auto, 60k mi., new tires, original owner, \$2,300. Ext. 2344 or 751-4254.

79 FORD BRONCO - am/fm cass., new tires & rims, auto, \$4,500. Mike, Ext. 3277 or 281-7485. UTILITY TRAILER - 4'x8', \$100. Len, Ext. 4289,

BED LINER - one piece, fits 82 Toyota pick-up, 6 ft. bed. \$125. 475-0831.

75 CHEVY MALIBU - new trans., good running cond., \$550. Ext. 4995, or 282-3071.

72 MERCURY MONTEGO - 58k orig. mi., \$450.

Dan, Ext. 4987 or 698-7322. 70 MUSTANG - V8, 302, auto., excel. cond.,

\$2,000. Ext. 3421 or 727-8631. 80 VW RABBIT - diesel, very clean, 84k mi., \$1,500

firm., Carla, 289-3090.

84 MAZDA RX7 - beige, sunroof, stereo, many extras, low mi., Ext. 7518 or 581-8085.

79 TOYOTA COROLLA - liftback, auto, 4 cyl., \$1,100, 732-1355, eves.

TIRES AND RIMS - two 8.75 x 16.5, for Chevy

truck, \$30. 744-8167, after 5 p.m.

83 PLYMOUTH TURISMO - red, GT-sport, sunroof, 2.21/5 spd., Shelby; hi-comp. stereo, showroom cond., 29k mi., \$4,800 neg. Ralph, Ext. 2368 or 928-6654

SUZUKI GS250t - counter-balanced drive shaft for minimum vibration and wear. Includes manual, helmet, luggage rack, and windshield, excel. cond., \$399. Ext. 4411 or 929-8287

 $83\,BMW\,528E$  -  $50k\,mi.$ , loaded, excel. cond.,  $6\,cyl.$ , 25 mpg. Al, Ext. 4397

81 PONTIAC PHOENIX - hatchback, am/fm, new tires, shocks, good value, \$1,900. Christopher, Ext.

85 FORD VAN - auto, overdrive, small V8, twin gas tanks, 32k mi., mint cond. 243-2054.

82 TOYOTA STARLET - 5 spd., am/fm cass., excel. cond., asking \$2,800. John, Ext. 3292 or 286-1348. 75 FORD GRANADA - standard shift, runs very

well, reliable, \$450. Ext. 2455 or 331-1432. 78 FAIRMONT - 2 dr., 4 cyl., 4 spd., p/s, am/fm

cass., mag wheels, 38k mi., recond. eng., excel. cond., \$1,550. Mike, 929-8142.

78 FORD THUNDERBIRD - full power, am/fm, a/c, very clean, \$1,250. Tom, 363-2056.

65 MUSTANG - hardtop, all orig., low mileage, excel. cond., extras., make good offer. 929-4701. DUAL OIL FILTER - Ford products, \$2.; rim 14",

for GM wheel with disc brake, Morris, ext. 4192. 80 CHEVY MONZA - blue, a/t, p/s, a/c, am/fm cass., good cond., asking \$1,500. John, Ext. 3292

or 286-1348.

78 CHEVY MONZA COUPE - a/c, p/s, new tires, good trans., Bob H., Ext. 2468 or 654-3989 after 5 p.m.

75 HONDA MOTORCYCLE - CB550F, good cond., garaged, low mi., \$450. Walt, Ext. 4028.

80 MUSTANG - 6 cyl., auto, sunroof, stereo, new tires, mags, excel. cond., asking \$3,250. Ext. 3457 or 744-5820

76 FORD PINTO WAGON - V6, good tires, good station car, \$250. 928-6055.

82 PLYMOUTH CHAMP - 48k, excel. in & out. 363-7032

66 FORD MUSTANG - not running, \$500. 399-

82 PLYMOUTH HORIZON - good cond., new starter, high mileage, 40 mpg, \$2,500 neg. 928-8379.

75 BUICK LeSABRE - 2 dr., green, fully loaded, low mileage, A-1 cond., price neg., deserves looking. 924-3236.

73 CADILLAC COUPE DeVILLE - good cond., power everything, runs well. \$475. Frank, Ext. 2022 or 399-4480.

73 PLYMOUTH VALIANT - 4 dr., 6 cyl., good cond., good tires, \$400. Tim, Ext. 3496, eves or 281-7873.

83 FORD ESCORT - 4 dr., p/s, a/t, a/c, am/fm cass., \$3,000. Neil, Ext. 2023.

76 MONTE CARLO - p/s, p/b, a/c, am/fm, bucket seats, good cond., \$750; 76 Wilderness Camper, 18', sleeps six, \$3,700; 75 Wagoneer w/hitch, etc., good cond., \$2,500. 585-3417 or 874-3796.

75 OLDS - runs well, am/fm, stereo, a/c. Ext. 2788 or 758-7511.

70 BUICK LeSABRE - 4 dr., a/c, p/s, p/b, a/c, 80+k mi., \$700. Ext. 2055 Fri. or 294-3287

74 CADILLAC - Fleetwood Brougham, fully loaded, 4 dr. sedan, 79k mi., elegant, solid, \$2,195. Herb, Ext. 2011 or 929-4446.

FORD TRANSMISSION - 3-spd., good cond., \$50. Roger, Ext. 4677 or 878-8847.

FOLD-UP TRAILER - Apache. 475-3553, after 5

77 OLDS CUTLASS - p/s, p/b, a/t, 96k mi., \$300 or best offer. Ext. 4950 or 929-6458 after 6 p.m.

73 CADDY - a/c, best offer; 80 Chevette, complete, new muffler, \$1,400, 399-1985

#### **Boats and Marine Supplies**

79 BAYLINER - 26', 280 Volvo, sleeps 4, galley CB/DF, shower, head, camperback, 110, \$13,750. 286-0372.

TRAILER - 16' w/extra 13" rim/tire, winch and lights, \$200. Ext. 4669 or 744-9429.

75 SPORTSCRAFT - 27", 350 cid inboard, FWC, recorder, Ioran, full canvas, 160 gallon fuel tank. Chris, Ext. 4028 or 399-3732.

CATALINA 27' SLOOP - 1976-7, 3 sails, inboard, cruise equipped, very good cond., Ext. 2144.

### Miscellaneous

CB - w/tripod for house: blackboard w/stand; 3 ea. antique sleds. Gill, Ext. 4043 or 878-6676.

BICYCLE - Schwinn LeTour III, Avolet saddle, toe straps, air pump, 10 spd., \$200. Frank, 325-9584.

YAMAHA CONSOLE ORGAN - full chords, full pedals, excel. cond., must see, music manual, \$1,500. 281-4501.

COLOR TV - Emerson 19", 10 mo. old., w/guarantee, \$140; toaster oven, \$20. Dov, Ext. 4552 or Ext. 3105, eves.

GIRLS BIKE - 24 ", 10 speed, Columbia, good cond., \$35; chairs, upholstered green, \$20 ea., 2/\$30; Bathroom sink, w/cabinet, and yellow toilet, \$25 ea., \$40/both. Ext. 4607 or 368-0452.

13" COLOR TV - Shears, remote, used 10 mos. \$240; baby stroller, used 10 mos., \$20, Ext. 2183 or

MATERIAL - 50¢ a yard, cotton, taffeta, satin, slip-

BREAKFRONT - 5' walnut, upper glass, lower doors & drawers, excel., \$200; couch, chair, need

slipcovers, both \$50. Ext. 2529. ETAGERE - and two coffee tables, plus end table,

smoked class, \$350; sofa, and two side chairs, good cond., \$250. Rich, Ext. 7932 or 924-4732.

PIONEER STEREO RECEIVER - w/bic automatic turntable, w/cart, both only \$75. 924-3236.

GOWNS - size 7, 1 cream lace; 1 pink illusioned neckline, 1 cream w/print, \$25 ea. or best offer. Sheita, Ext. 3331.

LAMP - living room; (3) evening gowns, size 12. 399-1985.

REFRIGERATOR - good cond., will transport within 25 miles of Lab, \$25. Jim, 878-8012, leave mes-

SEWING MACHINE - Pfaff, good cond., \$95. Ext. 2365 or 475-4787 after 6 p.m.

ANTIQUE FURNITURE - oak pedestal, library tables. \$95 ea: mission stand with marble shelves \$65; oak mirror, \$35; buffet, \$195. 475-4199.

RANGE - Hotpoint, gas, avocado, good cond., \$150 Ext 3260 878-6074

FIREWOOD - split, seasoned oak, 4'x16'x22-22" pieces, \$105 delivered. Call 732-2849.

GOLF CLUBS - mens, r/h, Walter Hagen, ultra dynamic 1-4 woods, 2-9 s/w, p/w irons, \$289. 744-8167 after 5 p.m.

HOME WATER DISTILLER - new, 4 gallons a day. 363-7032.

3M DISKETTE - 51/4" ds/dd, new \$10/10; portable typewriter, \$25. Jim, Ext. 3372.

KNIVES - for collectors 50% off retail, almost all American brands, including folders. Don, 281-

COSTUMES - theatrical and dance, large selection, hardly used, women's and girls', best offer. 475-4690

WHEELBARROW - \$15; spreader \$15; tele tree trimmer, \$10; 14" elec. chain saw w/extra chain, \$40. Ext. 2460.

CHAIRS - black wrought iron kitchen (5), \$100; table to match, \$50. 929-4701.

CARVIN MIXING CONSOLE - 5x602, six inputs, five outputs, reverb talkback 550. 363-5051 after 4

MOVING SALE - couch, \$25; 13" b&w TV, \$10; large kitchen table, \$25; club chair, \$20. 928-8379.

HUNTING JEANS - Thinsulate insulated, camo., green, size 42 reg. (walls), new \$25. R. Mele, Ext. 2514, or 757-3178.

OAK FIREWOOD - (3 cords) 14"-18" logs, total cost, \$75. Ken, Ext. 3574 or 472-3329 after 6 p.m. ELECTRIC GUITAR - Aria Pro II, new cond., hard case, whammy, fine tune, strap, \$160. Dave, 821-

VACUUM CLEANER - Hoover, almost new, \$90; chandelier, \$10, Ext. 3136.

TRAVERSE ROD - RH draw, \$10; Racketball racquet, \$10; car speakers, \$15; Joe, Ext. 2898.

MOVING SALE - sleep sofa, triple dresser, men's dresser, coffee table, must sell. Ext. 3575 or 261-5290 eves & wkends.

CHAIN-LINK FENCE - used, all parts, saved, length 80 ft., \$75 total. Ken, Ext. 3574 or 472-3329 after 6 p.m.

GENUINE EXERCYCLE - excel, cond., power driven, develops body, legs, arms, \$200, originally \$500. 878-6637.

COLOR TV - 13" like new, \$120; wall phone, \$20; center table, corner tables, tennis racket, table

lamp. Ext. 5161 or 736-1864. CURTAINS - 7'x8' area (approx.), very good cond. Morris, Ext. 4192.

BURLED OAK - mirrored dresser, \$200; dining room set, Jacobean, crafted oak, 10 pieces, \$2,700 neg., Harriet, Ext. 4926 or 821-2932 after 6 p.m.

REFR/FREEZER - 21' cu., goldtone, good working cond., \$75. 722-4644.

#### Free

CAT - long-haired female, 1 yr. old, gray & white, free covered litter box. 732-1697.

#### Car Pools

BABYLON VICINITY - 2 riders looking to join or form car pool. Mike, Ext. 2705.

SETAUKET-FOX RUN - want ride or car pool. Arnold, Ext. 2434 or 751-2690.

### Real Estate

Real Estate advertised for sale or rent is available without regard for the race, color, creed, sex or national origin of the applicant.

#### For Rent

\$385 incl. util. 744-2821.

HILTON HEAD, SC - 2 bdrm. condo, sleeps 6, many extras, beach, pool, tennis, golf, fall special, Lab employees & families only, \$300/wk, 585-9149. SHIRLEY - 2 rm. apt. w/full bath, walk to beach,

RIDGE - Strathmore Ridge, Town House, 2 bdrm. ranch, fully equip., 2 mi. from Lab, w/w, no pets, \$650/mo. + util., avail. Oct. 1. Ext. 2921. LONDONDERRY, VT - modern chalet on pond, 3

bdrm., 2 bath, fall color, hiking trails, theater, winter skiing, Stratton, Bromeley, Magic Mtns., rent wknds., weeks, etc. 757-5599. SHIRLEY - 1 mi. Smith Pt., 8 mi. BNL, immaculate 3

bdrm. ranch, I/r, d/r, eik, util. rm., w/w. appli., fenced-in-yard, quiet st., \$750 + util. 744-5448 after 5 p.m. BELLPORT VILLAGE - 4 bdrm. contemporary

house, avail. Oct. 1, \$800/mo. 286-4845. SPRINGHILL, FL - West coast, 2 bdrm. home, avail. weekly or monthly, planned community, 2

golf courses. Ext. 4530 or 261-2719. EAST MORICHES - charming 2 bdrm. home, European kitchen, hardwood floors, att. barn, w/skylights & woodstove, nice yard w/inground pool, prefer no pets or children, \$695/mo. Neil, Ext. 4261 or 878-8875 after 6 p.m.

HOLBROOK - spacious, newly decorated home, 4 bdrms., 11/2 bath, dining area, country kitchen, dishwasher, new stove, gas hot water heater & windows, encl. porch, avail. Oct. 1, \$900 + util. Ext 2529.

E. PATCHOGUE - S. of S. Country Rd., 2nd fl. apt., 2 bdrm., I/r, eik, priv, ent., avail, Oct. 1, \$450/mo, + util., no pets. Walt, Ext. 2907 or 698-0576.

MT. POCONO, PA - chalet, summer/winter, 3 bdrm., sleeps 10, furn., lake, pool, tennis, horse-back riding, weekly, midweek, wknd. rates. Ext.

SAYVILLE - large studio, new kitchen, bath, priv. ent., nice area, \$500/mo. incl. util. Ext. 2208

RIDGE - No. of Rte. 25, 1.12 acre plot, 100+x400+, level, 80% cleared, 20% wooded, in estb. quiet locale, \$47,900. 924-3236.

SHOREHAM NORTH - 4 bdrm., Colonial, 21/2 baths, den, f/p, bsmt., fenced, patio, formal dining rm., \$179,000. 744-1750.

SHOREHAM - 4 bdrm. ranch, 2 bath, eik, I/r, d/r, newly fenced, cent. a/c, inground sprinkler system, fully landscaped, \$156,900. 744-4288. ROCKY POINT - 3 bdrm. ranch, I/r w/fp, fam. rm.,

full bsmt., deck, town water, treed, parklike, Ige. play area, \$144,000. 282-2017 or 744-7708. AQUEBOGUE - new 3 bdrm. ranch, 2 full baths, I/r,

MASTIC BEACH - 5 rm. house, 2 bdrm., I/r, eik, full bath, 20x100 plot, \$63,500. 744-2821.

d/r, kitchen, mudrm., town water, gar., full bsmt., 1/2

acre, close to golf, parks & boating, \$127,500. Tim,

SHOREHAM - 3-4 bdrm., 11/2 bath, I/r, eik, den/fp, study, gar., shy ½ acre, low taxes, more, \$124,000. 821-1704.

#### Wanted

HOUSE TO SIT - free, responsible, experienced, caring, reliable, any period after Sept. 6, Jack

CHILDREN - 5-17 yrs. old, who are interested in learning Chinese at the Center For Chinese Learn-

JETS TICKETS - 2, any game(s), eves. Tom, 421-4670.

spacious house in Ridge, lease Sept. thru May. Karen A., Ext. 3396.

286-8563.

KIDNEY FUND CONTACT PERSON - do you know where to send pop tops collected for dialy-

1844 eves.

HOUSEMATE - female, own room, share house, mins, from Lab, \$200/mo. all. Pat, 281-0973 eves. BABYSITTER - experienced, Tues. & Thurs.

ROOMMATE - Middle Island, share townhouse, furn., a/c, tennis, pool, \$400 all. Ext. 3160 or 289-5704 after 5 p.m.

Services are listed as a courtesy to BNL employees. They are neither screened nor recommended by

also interior & exterior cleaning & wax, 15 yrs. exper. 874-3844. PIANO LESSONS - private & group lessons by

track loader, \$55/hr. w/operator. Tom, Ext. 4084 or 878-1060

FIRESIDE CHIMNEY SWEEP - fireplaces, wood, coal & oil flues, caps, repairs, relining, access., Lab

tional I.I. Sound, bays & creeks, basic thru advanced. Tim, Ext. 3496 eves. or 281-7873.

BABYSITTING - 1 or 2 children exclusively, my

home, exper., refs., Beliport. MaryAnn, 286-2435. PARTY TENTS - for rent, we set up & take down. for info. call Fred Kuehl, Ext. 7947 or 4823 or

BABYSITTER - teenager, avail. anytime. Vashti, 821-3290.

BRICKWORK - walks, patios, brick & sand, Belgium block, landscaping ties, swimming pools.

### **Classified Ad Policy**

### Deadline is 4:30 p.m. Friday for publication Friday of the following week.

 The Brookhaven Bulletin's classified section may be used only by active and retired Laboratory employees. 2. All items for sale or rent must be the advertiser's property.

3. Ads for material acquired for resale in association with a

4. Ads for the sale or trade of firearms will not be accepted

full or part-time business cannot be accepted.

5. Ads not carried because of space restrictions will be held for publication in the next issue. 6. Ads are run only once and must be resubmitted if they are to be repeated. One ad per person per week.

7. Property for sale and rent cannot be accepted on this

form. Special Real Estate Ad Forms are available at the

office of the Brookhaven Bulletin, Building 134.

☐ For Sale: Autos & Auto Supplies ☐ For Sale: Miscellaneous ☐ Lost & Found ☐ Free ☐ For Sale: Boats & Marine Supplies ☐ Car Pools ■ Wanted **--**Please print your ad below in 15 words or less using one word per block. Include name and phone number to call:

Note: The following must be completed for your ad to appear

Employee's Signature ..... Life No. Ext. ..... Send to: Brookhaven Bulletin, Building 134 (Ext. 2345).

Allentuck, Ext. 2412.

ing at Stony Brook. 689-8548 after 6 p.m. or 751-6436.

HOUSEMATE - to share 2 bdrm., 2 bath, sunny

GUITAR - regular size for beginner. 298-4398. GOLF BAG - light, small, cheap. Liz, Ext. 2430 or

sis? If so, call Cindy or John, 289-8253. HOUSE - 3 bdrm., reas. rent for professional woman & children, east of BNL, excel. refs. 369-

BASEBALL CARDS - any year, any cond. Ed or Dennis, 744-7796 after 6 p.m.

beginning Sept. 9, refs. JoAnn, Ext. 3406 or 654-5786 after 5:30 p.m.

AUTO PAINT & BODY WORK - free estimates,

Juilliard-trained teacher. 928-3244. LAND CLEARING - using excel. rake on JD 450

SEAMSTRESS - clothes made & altered, reas, prices. Donna, Ext. 4430 or 369-2332 after 6 p.m.

discounts. 821-9690. KAYAK LESSONS - Sea kayak, slalom recrea-

TROYBILT ROTOTILLING - lawns & gardens, reas. Bob, 732-9517.

588-2268.

Tony, 698-9274.